What is claimed is:

1.   An image-sensing apparatus comprising:

a solid-state image sensor including:

a plurality of pixels that perform photoelectric conversion so as to generate output signals that vary with a first characteristic in a first region and with a second characteristic in a second region with respect to amount of incident light; and

a plurality of types of color filters provided in vicinity of the pixels; and

a white balance circuit that performs white balance processing by performing, on at least one of different types of chrominance signals outputted as corresponding to the different types of color filters from the solid-state image sensor, different calculation operations fit respectively for the first and second characteristics in the first and second regions so as to thereby generate new output data.

2.   An image-sensing apparatus as claimed in claim 1, wherein the first region is located on a lower-brightness side of the second region, and the output signals vary more greatly with the first characteristic than with the second characteristic with respect to the amount of incident light.

3.   An image-sensing apparatus as claimed in claim 1, wherein the white balance circuit performs the white balance processing by performing different calculation operations in at least three brightness regions, namely a region in which all types of chrominance signals represent the first characteristic, a region in which all types of chrominance signals represent the second characteristic, and a region in which at least one of the different types of chrominance signals represents the first

characteristic and at least one of the different types of chrominance signals represents the second characteristic.

4.   An image-sensing apparatus as claimed in claim 1,

wherein the white balance circuit performs the white balance processing by, assuming that one of the different types of chrominance signals is a first chrominance signal that serves as a reference and another of the different types of chrominance signals is a second chrominance signal, performing a calculation operation on the second chrominance signal so as to make a photoelectric conversion characteristic thereof identical with a photoelectric conversion characteristic of the first chrominance signal.

5.   An image-sensing apparatus as claimed in claim 1,

wherein a switching point at which the output values of all the types of chrominance signals switch between the first and second regions is identical.

6.   An image-sensing apparatus as claimed in claim 1,

wherein the white balance circuit has a look-up table in which are previously stored calculation results of the calculation operations so that the white balance processing is performed by generating the new output data of the different types of chrominance signals by using the look-up table.

7.   An image-sensing apparatus comprising:

a solid-state image sensor including:

a plurality of pixels that perform photoelectric conversion so as to generate

output signals that vary with a first characteristic in a first region and with a second characteristic in a second region with respect to amount of incident light; and

a plurality of types of color filters provided in vicinity of the pixels; and

a white balance circuit having a first look-up table in which is stored information with which to perform white balance processing on different types of chrominance signals outputted as corresponding to the different types of color filters from the solid-state image sensor,

wherein the first look-up table provides, as output data, signal levels that are corrected, relative to levels of input chrominance signals, for deviations among the different types of chrominance signals in such a way as to correspond to the first and second regions.

8.   An image-sensing apparatus as claimed in claim 7,

wherein the first region is located on a lower-brightness side of the second region, and the output signals vary more greatly with the first characteristic than with the second characteristic with respect to the amount of incident light.

9.   An image-sensing apparatus as claimed in claim 7,

wherein the first characteristic is such that the output signals vary linearly with respect to the amount of incident light, and the second characteristic is such that the output signals vary logarithmically with respect to the amount of incident light.

10.   An image-sensing apparatus as claimed in claim 7,

wherein the first look-up table provides output data that correspond to at least three brightness regions, namely a region in which addition and subtraction are performed among

signal levels of the chrominance signals, a region in which multiplication and division are performed among signal levels of the chrominance signals, and a region in which addition/subtraction and multiplication/division are performed on the chrominance signals.

11.   An image-sensing apparatus as claimed in claim 7, further comprising:

an evaluation value calculation circuit that, assuming that one of the different types of chrominance signals is a first chrominance signal that serves as a reference and another of the different types of chrominance signals is a second chrominance signal, calculates, for each type of second chrominance signal, an evaluation value that indicates a relationship between a photoelectric conversion characteristic of the first chrominance signal and a photoelectric conversion characteristic of the second chrominance signal on a basis of a relationship between signal levels of the first and second chrominance signals fed from the solid-state image sensor,

wherein the first look-up table provides the output data on a basis of the evaluation value and the photoelectric conversion characteristic of the first chrominance signal.

12.   An image-sensing apparatus as claimed in claim 11,

wherein the evaluation value calculation circuit calculates the evaluation value on a basis of average values of the first and second chrominance signals respectively.

13.   An image-sensing apparatus as claimed in claim 12,

wherein the evaluation value calculation circuit calculates the evaluation value by calculating a first evaluation value on a basis of a relationship between average values of the first and second chrominance signals respectively as varying with the first characteristic,

calculating a second evaluation value on a basis of a relationship between average values of the first and second chrominance signals respectively as varying with the second characteristic, and adding together the first and second evaluation value with weights.

14.   An image-sensing apparatus as claimed in claim 13,

wherein the evaluation value calculation circuit sets the weights with which the first and second evaluation values are added together on a basis of a relationship between number of pixels that output signals that vary with the first characteristic with respect to the amount of incident light and number of pixels that output signals that vary with the second characteristic with respect to the amount of incident light.

15.   An image-sensing apparatus as claimed in claim 7,

wherein the information in the first look-up table is updated according to variation of a relationship among the signal levels of the different types of chrominance signals.

16.   An image-sensing apparatus as claimed in claim 7,

wherein a switching point at which the signal levels of the chrominance signals outputted from the solid-state image sensor switch between the first and second regions is variable, and

the information in the first look-up table is updated according to variation of the switching point at which the signal levels of the chrominance signals switch between the first and second regions.

17.   An image-sensing apparatus as claimed in claim 7, further comprising:

a second look-up table that, assuming that one of the different types of chrominance signals is a first chrominance signal that serves as a reference, has, as input addresses, signal levels of the first chrominance signal and provides, as output data, signal levels having processing other than the white balance processing performed thereon.

18.   An image-sensing apparatus comprising:

a solid-state image sensor including:

a plurality of pixels that perform photoelectric conversion so as to generate output signals that vary with a first characteristic in a first region and with a second characteristic in a second region with respect to amount of incident light; and

a plurality of types of color filters provided in vicinity of the pixels; and

a white balance circuit having a look-up table in which is stored information with which to adjust a white balance among different types of chrominance signals outputted as corresponding to the different types of color filters from the solid-state image sensor,

wherein the look-up table provides, as output data, signal levels having white balance processing and processing other than the white balance processing performed thereon.

19.   An image-sensing apparatus as claimed in claim 18,

wherein the look-up table provides, as output data, signal levels having white balance processing and gradation conversion processing performed thereon.

20.   An image-sensing apparatus as claimed in claim 18,

wherein the look-up table provides, as output data, signal levels having white balance processing and gain adjustment processing for exposure control performed thereon.